

5258574



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5763-5

Job Sheet 207392



Part No: D5763-5

Job Qty: 30 pcs

Part Name: Pad



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/25/20

Job Tracking No:

Due Date: 3/6/20

Created By: Jennifer Renwick

Type: Stock

Description:

Note: URF 2020-525 Was PN: 78634-03 DWG D5763 REV:A IPP REV:A 19.12.19 NEW ISSUE JV VERF:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard	Workcenter/Supplier		Sign-off
					Setup Run Hrs Hrs	Workcenter / Supplier	Lead Time	
100	Waterjet - Flow - 1	30 pcs	3/6/20	3/6/20	0.17 1.00	Waterjet - Flow		20/02/26
110	QC 2	30 pcs	3/6/20	3/6/20	0.00 0.00	QC 2 - 1		
						QC 2 - 12		
						QC 2 - 14		
						QC 2 - 17		
						QC 2 - 19		
						QC 2 - 2		
						QC 2 - 20		
						QC 2 - 22		
						QC 2 - 23		
						QC 2 - 25		
						QC 2 - 32		
						QC 2 - 33		
						QC 2 - 35		
						QC 2 - 39		
						QC 2 - 4		
						QC 2 - 40		
						QC 2 - 44		
						QC 2 - 45		
						QC 2 - 48		20/02/26
						QC 2 - 49		
						QC 2 - 50		
						QC 2 - 51		
						QC 2 - 52		
						QC 2 - 57		
						QC 2 - 62		
						QC 2 - 63		
						QC 2 - 8		
						QC 2 - 66		
						QC 2 - 64		
						QC 2 - 65		

PRIORITY

Plex 2/25/20 1:01 PM Dart.lajeunesse.marie

120 QC 8	30 pcs	3/6/20	0.00 0.00	QC 2 - 5	
				QC 2 - 71	
				QC 2 - 73	
				QC 2 - 69	
				QC 2 - 76	
				QC 8 - 12	
				QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
				QC 8 - 57	
				QC 8 - 76	
				QC 8 - 61	
130 Packaging 3-1 - Stock - B4B	30 pcs	3/6/20	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	

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					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
					Packaging 3 - 37 - B4B	
140	QC 21 - SA	30 pcs	3/6/20	0.00 0.00	QC 21 - SA - 21	
					QC 21 - SA - 70	
					QC 21 - SA - 53	

Part Op **100** - 1-Cut as per D5763 DWG. DWG. Rev: A PROG. Rev: A 2-Deburr if necessary

Descriptions: **110** - QC2- Inspect parts off machine FAI/FAIB
120 - QC8- Inspect parts - second check
130 - Identify as per dwg & Stock Location: _____
140 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S11GA	304/316 0.125 Sheet	.3690 sf (.0123 ea)	100-Waterjet - Flow - 1	S242860

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Waterjet - Flow - 1	M304S11GA	0	145	0

Part Specifications

Specifications could not be found.

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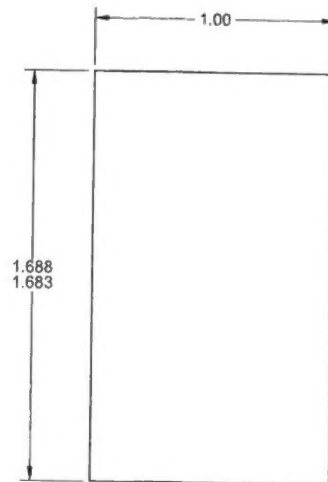
8 7 6 5 4 3 2 1

0.125
REF

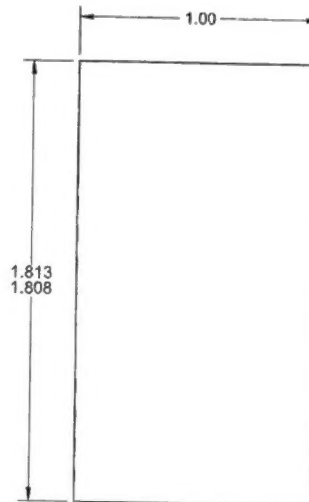
0.125
REF

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 207392 MJS
2002-25

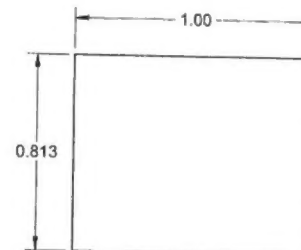
0.125
REF



D5763-5 PAD
(DERIVED FROM AERO DESIGN P/N 78634-03)



D5763-7 PAD
(DERIVED FROM AERO DESIGN P/N 78634-12)



D5763-9 PAD
(DERIVED FROM AERO DESIGN P/N 78634-11)

UNDER REVIEW
URF 2020-524 20.02.20 (NO)

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL BAR OR PLATE, 1/8 THICK
PER ASTM A276 OR ASTM A240 OR MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASME SA240
REF DART SPEC M304B OR M304S
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: -5: 0.06 lbs
-7: 0.06 lbs
-9: 0.03 lbs

RELEASED

2020 FEB 19

APPROVED

DESIGN	ZF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D5763 TITLE FWD BEAM SCALE NTS REV. A SHEET 6 OF 10
DRAWN	SAD	
CHECKED	NO	
MFG. APPR.	DD	
APPROVED	NO	
DE APPR.	CP	
DATE	20.02.19	

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NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD

8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **POHB045332**



Supplier: ACI001-VF
Acier Oue' .tte Inc.
935 Boul u Havre
Valleyfie
QC
J6S 5L Jada
Phone :00 567 4248
Fax: 450 377 5696

Attention: Langevin, Melanie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB045332

PO Date: 12/6/19

Due Date: 12/13/19

Purchase Order
Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: 613-623-5200 Ext: 242
Fax: 613-632-1053
clavoie@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments: quote no. sou0227540

DEC 06 2019

Items

Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		M2024T3S.040			2024-T3 .040 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A- 250/4 OR AMS-QQ-A- 250/4 OR AMS 4037 OR ASTM B209	Firmed	-	12/13/19	144 sf	0 sf	144 sf	\$6.9811666/sf	\$1,005.29
									144 sf 613			DAS 82 9-89	
												DEC 19 2019	
2		M6061T6S.188			6061-T6 .188 Sheet : MATERIAL: 6061- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	-	12/13/19	48 sf	0 sf	48 sf	\$12.77916650/sf	\$613.40
									48 sf 613			DAS 82 9-89	
												DEC 19 2019	



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB045332



Items													
Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	ccount	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3		M6061T6S.080			6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed		12/13/19	192 sf	0 sf	192 sf	\$6.2664583/sf	\$1,203.16
										192 sf 192 sf 192 sf 192 sf		DAS 82 9-89 DEC 19 2019	
4		M304S11GA			304/316 0.125 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed -		12/13/19	96 sf	0 sf	96 sf	\$13.329062/sf	\$1,279.59
										96 sf 66B		DAS 82 9-89 DEC 19 2019	
5		M304S14GA			304SS sheet .080 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed -		12/13/19	64 sf	0 sf	64 sf	\$8.366652630/sf	\$535.47
										64 sf 5F 66B		DAS 82 9-89 DEC 19 2019	



Dart Aerospace Ltd.
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K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB045332



Items

Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6		M304S16GA	D3494		304/316 Sheet .063 MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	-	12/13/19	128 sf	0 sf	128 sf	\$6.5061562/sf	\$832.79
									128 sf				
7		M304S18GA			304/316 .050 Sheet MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	-	12/13/19	320 sf	0 sf	320 sf	\$5.7099375/sf	\$1,827.18
									320 sf				
Grand Total:												\$7,296.87	

Order Notes

Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable). No Raw Metals from China or Soviet Bloc Countries. (DFARS)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program.

A049 supplier awareness.

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/6/19 11:14 AM Dart.Lavoie.Chantal

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 MJ: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 MJ: 514-336-4246 Ext.: 866-456-4242

DELIVERY - **MILL TEST****Copy**

C000183417

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7**Shipped to**1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7**Customer N°**

CLI0001056

Date

2019/12/06

Delivery date**2019/12/13****Your order N°**

POHB045332

Processed by

Josianne Bourdon

Salesman

JOSIANNE BOURDON

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Instruction F-M

Att :

Delivery Route 5

Product Description	Weight	Qty	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ALU SHEET .040 (18G) 2024-T3 48 (4 X 12) DART FEALD-0404122024B 12473 AC32236-SA-11/12 <i>lot 338988B9 cost: 131</i>	81.07	144.00	PI2_\$CLB								
		1.00	UN_\$UN								
2 ALU SHEET 3/16 6061-T6 (4 X 12) FEAL-3164126061 4269 AC32233-TH-11/12 <i>lot 16135101 H: 01/0091979/8</i>	128.88	48.00	PI2_\$CLB								
		1.00	UN_\$UN								
3 ALU SHEET .081 (12G) 6061-T6 (4 X 12) FEAL-0814126061 3195 TRANSFERT ST-JEROME LE 11-12 PACKAGING <i>lot: 400871 H: H3600021</i>	164.30	144.00	PI2_\$CLB								
		0.00	UN_\$UN								
		1.00	UN								
4 SHEET SS 11G SS304-2B (4 X 8) FESS-11G483042B 3402 PACKAGING <i>Heat: C84X</i>	504.00	96.00	PI2_\$CLB								
		1.00	UN								
5 SHEET SS 14G SS304-2B (4 X 8) FESS-14G483042B 3412 PACKAGING <i>Heat: LZ25HC10</i>	209.98	64.00	PI2_\$CLB								
		1.00	UN								
6 SHEET SS 16G SS304-2B (4 X 8) FESS-16G483042B 3419 PACKAGING <i>Heat: 4167</i>	336.00	128.00	PI2_\$CLB								
		1.00	UN								
7 SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 PACKAGING <i>Heat: C44B</i>	672.00	320.00	PI2_\$CLB								
		1.00	UN								

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DEC 20 2019



Invoice

FC00190611

ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Sold to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7
Att : Facturation

Customer N° CLI0001056
Date 2019.12.16
Your order N° POHB045332
Salesman JOSIANNE
Carrier OUELLETTE VALLEYFIELD
Credit Term Net 30 Days
Order N° CO00183417

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
ALU SHEET .040 (18G) 2024-T3 48 (4 X 12) DART FEALD-0404122024B 12473 3 X 4' X 12' POHB045332 LINE 1 LOT 338988B9 CAST 131 AC32236-SA-11/12	81.07	144.00	PI2_\$CLB	3.00	UN		3.0	335.0967	1 005.29
ALU SHEET 3/16 6061-T6 (4 X 12) FEAL-3164126061 4269 1 X 4' X 12' POHB045332 LINE 2 LOT 16135/01 HEAT 01/0091979/8 AC32233-TM-11/12	128.88	48.00	PI2_\$CLB	1.00	UN		1.0	613.4000	613.40
ALU SHEET .081 (12G) 6061-T6 (4 X 12) FEAL-0814126061 3195 3 X 4' X 12' POHB045332 LINE 3 LOT 400871 HEAT H3600021 TRANSFERT ST-JEROME LE 11-12 PACKAGING	164.30	144.00	PI2_\$CLB	3.00	UN		4.0	228.0925	912.37
SHEET SS 11G SS304-2B (4 X 8) FESS-11G483042B 3402 3 X 4' X 8' POHB045332 LINE 4 HEAT C84X PACKAGING	504.00	96.00	PI2_\$CLB	3.00	UN		3.0	426.5300	1 279.59
SHEET SS 14G SS304-2B (4 X 8) FESS-14G483042B 3412 2 X 4' X 8' POHB045332 LINE 5 HEAT LZ25HC10 PACKAGING	209.98	64.00	PI2_\$CLB	2.00	UN		2.0	267.7300	535.46
SHEET SS 16G SS304-2B (4 X 8) FESS-16G483042B 3419 4 X 4' X 8' POHB045332 LINE 6 HEAT 4167 PACKAGING	336.00	128.00	PI2_\$CLB	4.00	UN		4.0	208.1975	832.79
SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425	672.00	320.00	PI2_\$CLB	10.00	UN		10.0	182.7180	1 827.18

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9-89
DEC 20 2019



Invoice

FC00190611

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
10 X 4' X 8' POHB045232 LINE 7 HEAT: C44B PACKAGING	0.00	1.00	UN	1.00	UN				
FUEL CHARGE FRAIS_ENERGETIQUE	0.00		\$						3.95

Note : ATTENTION: MILL TEST REQUIS*Chaque item identifier avec :*

- Le # PO client
- Le # d'item
- Le heat #
- Emballer les pièces dans carton

Conditions : Total Weight (Lbs) : 2 096.24

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Subtotal	7 010.03
TPS/GST : 822 670 774 RT0001	
TVQ/QST : 122 127 8182 TQ0001 HST	911.30
Total (\$CAD)	7 921.33
Solde (\$CAD)	7 921.33

LINE 4

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 103045 116A
 DATE: DEC 20 2019

PO / BATCH NO.: POM13045332
5242860

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 96 SF
 QUANTITY INSPECTED: 96 SF
 QUANTITY REJECTED: —

THICKNESS ORDERED: .125
 THICKNESS RECEIVED: .125
 SHEET SIZE ORDERED: 4'x8'
 SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	<u>ASTM A240</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>HIT C84X</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>32</u> <u>3-89</u>	SIGNED OFF BY: _____		
DATE: <u>DEC 20 2019</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

LIME 4

~~MAS~~ M304S11GA

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED

SPECIFICATION: MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

DAS
82
S-89

DEC 20 2019

FINISH:

FINISH	DART M-NUMBER
UNPOLISHED No. 1	1P
UNPOLISHED No. 2D	2D
UNPOLISHED No. 2B	NONE
POLISHED No. 3	3P
POLISHED No. 4	4P
BUFFED No. 6	6P
BUFFED No. 7	7P
BUFFED No. 8	8P

PART NUMBER: M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED

2015 FEB 04

ECN 15-322 67

D	ADDED GAUGES 0-7	AJS	15.01.06
C	DEFINED FINISH OPTION (ZN CB) AND EXAMPLE OF MATERIAL P/N WITH FINISH OTHER THAN 2B (ZN B5)	MR	12.09.20
B	REFORMAT DWG, ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (CB-1), REF PAR 08-020A	CP	09.06.01
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		M304S	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		304/316 SS SHEET	NTS
DATE	15.01.06	COPYRIGHT © 2001 BY DART AEROSPACE LTD	

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 526418 1

Customer: 007050 001

Date: 7/25/2019 Page: 1

Steel: 304/304L

Finish: 2B

Corrosion: ASTM A262/15A;180Bend-OK

Your Order: 70546

NAS Order: WN 0111468 02

PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED. UNS 30400/30403
ASTM A240/18, A480/18a, A666/15; ASME SA240/17, SA480/17, SA666/17
CHEM ONLY ON FOLLOWING ASTM: A276/17, A479/17, A484/16, A312/16
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13
AMS 5511H/5513J XMKX; MIL-5059D AND3(X CRN MEAS); MIL-4043B
NACE MR0175/ISO 15156-3:2009 A, MR0103/07; Q3766D-A X MAG FERM
MIL SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DPA's Compliant

MIN. SOLUTION ANNEAL
DAS
82
9-89
DEC 20 2019

Product Id	Coil #	Skid #	Thickness	Width	Weight	-----Length-----	Mark	Pieces	Commodity Code
05CB4X AA	05CB4X A		.1200	48.0000	4,442	SHEETS 144.00		19	

CHEMICAL ANALYSIS

CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

HEAT	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
C84X	US	.0232	18.1450	.4395	1.8185	.3810	.0826	8.0750	.0320	.0033
		SI %								
		.2745								

MECHANICAL PROPERTIES

Product Id#	1 o c	d i x	UTS KSI	20C .2% YS KSI	20C ELONG %-2"	% Hard RB	Tail Hard
05C84X AA	F	T	93.43	44.50	48.77	85.00	85.50

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRTS TARK

7/25/2010

dent: C84X

[illegible]

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____		DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>		DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Large Fab <input type="checkbox"/> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Eng. (Non-AW) <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Engineering <input type="checkbox"/> Water Jet <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/>																															
Date : _____		Sequence #: _____		QTY Affected : _____		MRB (QSI042)																													
Description Work Order Deviation				Disposition		Completed By																													
						Lead hand / Supervisor																													
						QC / QA Coordinator																													
Root Cause Operator <input type="checkbox"/> Manufacturing Process <input type="checkbox"/> Equip/Tooling <input type="checkbox"/> Handling/Presservation <input type="checkbox"/> Material <input type="checkbox"/> Product Improvement <input type="checkbox"/> Process Improvement <input type="checkbox"/> Human Factors <input type="checkbox"/>		FAULT CATEGORY <table border="0"><tr><td><input type="checkbox"/> Pressure/Forced</td><td><input type="checkbox"/> Contamination</td><td><input type="checkbox"/> Power Loss/Surge</td><td><input type="checkbox"/> Positioned Wrong</td></tr><tr><td><input type="checkbox"/> Bending</td><td><input type="checkbox"/> Misaligned/off center</td><td><input type="checkbox"/> Folio/Program</td><td><input type="checkbox"/> Outside Tolerance</td></tr><tr><td><input type="checkbox"/> Crushing</td><td><input type="checkbox"/> BOM/Route</td><td><input type="checkbox"/> Grain Direction</td><td><input type="checkbox"/> Drawing</td></tr><tr><td><input type="checkbox"/> Cracks</td><td><input type="checkbox"/> Broken/Damage/Defect</td><td><input type="checkbox"/> Weld</td><td><input type="checkbox"/> Finish</td></tr><tr><td><input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist</td><td><input type="checkbox"/> Incomplete/Unclear Instructions</td><td><input type="checkbox"/> Wrong Stock Pulled</td><td><input type="checkbox"/> Part Lost/Missing</td></tr><tr><td><input type="checkbox"/> Marks/Chatter</td><td><input type="checkbox"/> Drill Holes</td><td><input type="checkbox"/> Out of Sequence</td><td><input type="checkbox"/> Misread</td></tr><tr><td><input type="checkbox"/> Mislabeled</td><td><input type="checkbox"/> Fit/Function</td><td><input type="checkbox"/> Off-set/Set-up</td><td></td></tr></table>						<input type="checkbox"/> Pressure/Forced	<input type="checkbox"/> Contamination	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Bending	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Tolerance	<input type="checkbox"/> Crushing	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain Direction	<input type="checkbox"/> Drawing	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Weld	<input type="checkbox"/> Finish	<input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist	<input type="checkbox"/> Incomplete/Unclear Instructions	<input type="checkbox"/> Wrong Stock Pulled	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Misread	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Off-set/Set-up	
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Other/Details: _____ _____ _____																																			